

THE HEMEROBIIDAE FROM NEW CALEDONIA*

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An opportunity was recently afforded me to examine the Hemerobiidae collected by the Osaka Museum of Natural History Expedition to New Caledonia, 1958. The collection consists of five specimens, representing three species, one of which is new to the fauna of the island and another new to science. Since three species of this family have hitherto been recorded from New Caledonia the present additions bring the total to five species, which may be enumerated as follows :

Notiobiella multifurcata TILLYARD

Proc. Linn. Soc. N. S. Wales, 41:310, pl. 16, fig. 23 (1916).—KIMMINS, Bull. Brit. Mus. N. H., Ent., 6:249 (1958).

1♂, Koghi, New Caledonia, October 9, 1958 (Y. Shibata).

This species, originally described from South Queensland, has been listed as occurring in New Caledonia by KIMMINS (loc. cit.). The specimen before me agrees well with original description and figure given by TILLYARD, who, however, makes no mention of the pale grayish brown ground color of the membrane of forewing. The grayish brown is confined to the middle of cells in basal and costal areas, but elsewhere it is more uniform, and small colorless areas behind the forks of longitudinal veins give the appearance of hyaline patches scattered over the grayish brown ground.

Noius noumeanus KIMMINS

Bull. Brit. Mus. Nat. Hist., Ent., 6: 242, figs. 3 and 4 (1958).

This most interesting species of the *Micromus*-group was described from New Caledonia, based on a single male. Not represented in the collection.

Eumicromus navigatorum (BRAUER)

Micromus navigatorum BRAUER, Verh. zool.-bot. Gesel. Wien, 17:508 (1867).

Micromus vinaceus GERSTAECKER, Mitt. naturw. Ver. Neu-Vorp. u. Rugen, 16: 111 (1885).

Archaeomicromus navigatorum ESBEN-PETERSEN, Ins. Samoa, 7: 93, pl. 2, fig 3. (1928).

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Scientific Results of the Melanesia Expedition, no. 4.

Eumicromus navigatorum KIMMINS, Ann. Mag. Nat. Hist., (X) 18:87 (1936).

Eumicromus diminutus NAKAHARA, Kontyu, 24:188, pl. 20, fig. 8 (1956).

Nesomicromus navigatorum ZIMMERMAN, Ins. Hawaii, 6:63, fig. 32 (1957).—Kimmings, Bull. Brit. Mus. Nat. Hist., Ent., 6:242 (1958).

This is a widely distributed species. It was recorded from New Caledonia by KIMMINS (loc. cit.) but there is no specimen in the collection before me.

Very close to *E. numerosus* (NAVAS), genotype of *Eumicromus*, and is surely congeneric with it according to my genitalic studies.

***Eumicromus neocaledonicus* n. sp.**

Head fuscous brown above, with pale median longitudinal streak; face yellowish; palpi pale, excepting two basal joints of maxillary palpus which are fuscous. Antennae fuscous brown, two basal joints darker. Pronotum fuscous brown with pale anterior border and median longitudinal streak; meso- and metanotum fuscous brown; scutellum pale. Legs pale, unspotted. Abdomen fuscous brown.

Forewing: outline of distal half highly asymmetrical with respect to the longitudinal axis of the wing, that is, outer margin below apex more or less straight and not smoothly curved. Membrane distinctly tinged with grayish with irregular darker clouds along outer and posterior margins. Veins fuscous, with some pale interruptions; outer gradates very dark, margined with dark grayish; a dark spot behind the median fork, Hindwing membrane uniformly and very slightly tinged with grayish, unmarked; venation mostly fuscous, paler toward wing base and in costal area; outer gradates distinctly darker.

Six branches to Rs in forewing; M forks far behind the origin of 1st branch of Rs and slightly before the first fork of Cu_1 ; M_{3+4} and Cu_1 narrowly separate and connected with each other by very short 1st crossvein m-cu. Five crossveins to inner and 8 to outer gradate series before media. In hindwing Rs with 5 branches; M_{3+4} and Cu_1 not fused; 4 crossveins to inner and 6 to outer gradate series media.

Length of body, 5 mm.; forewing, 7 mm.; hindwing 6 mm.

Holotype: ♀, Nouméa, New Caledonia, October 30, 1958 (Y. SHIBATA).

In spite of the absence of the male, wing venation is so typical of *Eumicromus* that I have no hesitation in placing this species in that genus. It differs conspicuously from the only Oceanic congener, *E. navigatorum* (Brauer) by the very dark coloration and the characteristic apical outline of forewing.

[*Nesomicromus marquesanus* KIMMINS was placed by ESBEN-PETERSEN under *Archaeomicromus*, which is a synonym of *Eumicromus*: KIMMINS' description and figures of male genitalia show, however, that it is generically distinct from the true *Eumicromus* and that his original generic placement is correct. This species has broadly and

symmetrically rounded outline of the apical half of forewing.]

***Nesomicromus tasmaniae* (WALKER)**

Hemerobius tasmaniae WALKER, Trans. Ent. Soc. London, ser. 2, 5:186 (1860).

Micromus tasmaniae HAGEN, Proc. Boston Soc. Nat. Hist., 23:291 (1886).—Tillyard, Proc. Linn. Soc. N. S. Wales, 41:307, text-fig. 2 (1916).

Micromus australis FROGGATT, Agr. Gazette N. S. Wales, page? (1904).

Micromus froggatti BANKS, Proc. Ent. Soc. Washington, 11:77 (1909).

Nesomicromus tasmaniae KIMMINS, Bull. Brit. Mus. Nat. Hist., Ent., 6:242 (1958).

1 ♀, Ile des Pins, New Caledonia, November 8, 1958 (Y. SHIABATA). 1 ♀, Koghi, New Caledonia, October 10, 1958 (Y. TSUTSUI). 1 ♀, Amoa, New Caledonia, November 19, 1958 (Y. SHIBATA).

This widely distributed species, known from New Zealand, Tasmania and Australia, is new to New Caledonia. KIMMINS (loc. cit.) records it from New Hebrides, but not from New Caledonia or Loyalty Islands. The three specimens examined agree entirely with specimens from Canberra, Australia, kindly presented to me by Dr. E. F. RIEK of Commonwealth Scientific and Industrial Research Organisation.

The morphology of male genitalia of this species shows that it should be generically separated from *Nesomicromus*, but here I refrain from introducing a new generic name, pending the completion of my paper on the classification of the Hemerobiidae based on genitalic characters.

I take pleasure in expressing my thanks to Mr. Isamu HIURA, Entomological Section of the Osaka Museum of Natural History, and to Dr. Masami OGATA, a member of the expedition, for the opportunity of examining this interesting material.

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